



Global Union Against Radiation Deployment from Space

www.stopglobalwifi.org

Before the Federal Communications Commission
Washington, D.C. 20554

To: Office of the Secretary
Federal Communications Commission
Washington, DC 2055

November 29, 2016 Via E-mail-Electronic Filing

Comment Filed by: GUARDS (Global Union Against Radiation Deployment from Space)

In Opposition to CenturyLink's Request for Permission to Abandon Landlines

In the Matters of:

**CenturyLink SECTION 214 APPLICATION TO
DISCONTINUE DOMESTIC, NON-DOMINANT
CARRIER TELECOMMUNICATIONS SERVICES**

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**WC Docket No(s). 16-383
Comp. Pol. File No. 1362**

Dear Sir or Madam,

GUARDS is an international coalition against global WiFi from space, a complex technology of radiation and toxic chemicals endangering all life on Earth. We urge you to deny CenturyLink's request to abandon and dismantle their landline phone system.

There are many reasons wire lines, whether copper or fiber optic should be maintained. Their removal with a mandatory switch to wireless or voice over internet will increase people's exposure to microwave radiation (a subset of the radiofrequency spectrum). Many people suffer from environmentally induced functional impairment when exposed to radiofrequency (RF) radiation from transmitters or through exposure to biologically significant RF interference (RFI) from the electronics used to provide phones service over cable or fiber. RFI, which can be incidental or unintentional, but still biologically active is intolerable to some people with RF sickness. The 2008 ADA Amendments require people with environmentally induced functional impairments to be provided with reasonable accommodation, in this case, landline phone service. Abandonment of the landline phone network would consign many people with RF sickness, a.k.a. electromagnetic hypersensitivity (EHS) or microwave sickness [see US Department of Labor Job Accommodation Network Fact Sheet (<https://askjan.org/links/about.htm>), also attached, advising use of wired telephones and networks], now estimated to be well over 5% of the

population; to isolation or force them into situations of potentially disabling functional impairment to communicate. This discriminates against a large segment of the population based on their disability and is a gross violation of the 2008 ADA Amendments. Abandoning the landlines would also violate other people's right to basic essential phone service, especially to the elderly who do not use cell phones, and as well, limit children's ability to readily access phone service in case of emergencies. Loss of wired lines also negatively affects call quality, particularly important for those with hearing issues (or who don't want to develop them) and of course any wireless service is prone to cybersecurity incursions which can lead to a wide variety of crimes including violence and fraud..

Abandonment of the Landline Phone System Violates Human Rights

Importantly, abandoning landline phone service would violate the U.N. Convention on the Rights of Persons with Disabilities, several sections of the U.N. Convention on the Rights of the Child, International Human Rights Law in the Universal Declaration of Human Rights and harm the environment. Some researchers estimate approximately 3% of the population have severe symptoms of EHS and another 35% of the population have moderate symptoms such as impaired immune system and chronic illness (Havas, 2013)

(<http://wirelessrighttoknow.com/wpcontent/uploads/2011/12/Havas2013.pdf>).

This is expected to continue to increase dramatically as RF/EMF exposures continue to increase (http://www.next-up.org/pdf/EHS2006_HallbergOberfeld.pdf).

In a recent government report, "RADIOFREQUENCY ELECTROMAGNETIC RADIATION AND THE HEALTH OF CANADIANS,"

<http://www.parl.gc.ca/housepublications/publication.aspx?DocId=8041315>, the Parliamentary Standing Committee on Health discusses the need for the government to continue to make accommodations for those suffering from EHS as required under the Canadian Human Rights Commission:

Recommendation 5

That the Government of Canada continue to provide reasonable accommodations for environmental sensitivities, including electromagnetic hypersensitivity, as required under the Canadian Human Rights Act.

Violation of U.N. Convention on the Rights of Persons with Disabilities

Increasing numbers of countries, such as Sweden and France, recognize Electromagnetic hypersensitivity (EHS) as an environmentally induced functional impairment or disability triggered by exposure to electromagnetic fields (including RF), as do the Canadian Human Rights Commission and European Parliament. Allowing CenturyLink to abandon landline phones would contravene Article 1 to "promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity"; Article 3 "Full and effective participation and inclusion in society"; and Article 15(2) stating: "Parties shall take all effective legislative, administrative, judicial or other measures to prevent persons with disabilities, on an equal basis with others, from being subjected to torture or cruel, inhuman or degrading treatment or punishment"; since persons who experience environmentally-induced functional impairment from using wireless devices would have no safe options to make or receive calls, especially in rural areas where many have sought a haven.

The European Economic and Social Committee (EESC) is an E.U. advisory body comprising representatives of workers' and employers' organizations and other interest groups. It issues opinions on E.U. issues to the European Commission, the Council of the E.U., and the European Parliament, thus acting as a bridge between the E.U.'s decision-making institutions and E.U. citizens. In February 2015, a formal letter of notice was sent to the EESC by the Radiation Research Trust (based in U.K.) and

approximately 90 other organizations from around the world in support of millions of people— estimated to be between 22,000,000 and 37,000,000—throughout Europe currently suffering EHS due to RF exposure from the proliferation of radiofrequency radiation emissions and emitters (i.e., mobile phones, DECT cordless phones, cordless baby monitors, phone masts, WiFi, smart meters, the smart grid, etc.) (http://www.radiationresearch.org/images/rrt_articles/EM-Radiation-Research-Trust-Letter-of-Notice-Served-on-Mr-Richard-Adams.pdf).

Violation of International Human Rights

Abandoning landline phone systems violates Article 3 of The UN Declaration of Human Rights, ratified by the General Assembly in 1948, which states, “*everyone has the right to life, liberty and security of person.*” Studies show RF radiation can cause serious biological effects at levels far below the existing FCC RF limits (www.bioinitiative.org) (<http://momswhocare.ca/wp-content/uploads/2016/07/Over-60-pdf-studies-2016-showing-harm-below-Safety-Code-6-18April-2016.pdf>). These effects include damage to DNA, which can lead to an increased risk for cancer and deleterious genetic mutations passed on to future generations. Decreases in sperm count and quality and increases in miscarriage and infertility have also been demonstrated in response to exposure to RF radiation.

Violation of U.N. Convention on the Rights of the Child

Under the Convention on the Rights of the Child, states/countries are responsible for acting in their children’s best interest. In this case, that would mean denying CenturyLink’s request to abandon their landline phone system.

In a letter to Congress, the American Academy of Pediatrics stated:

“Children are disproportionately affected by environmental exposures, including cell phone radiation. The differences in bone density and the amount of fluid in a child’s brain compared to an adult’s brain could allow children to absorb greater quantities of RF energy deeper into their brains than adults.”
<http://apps.fcc.gov/ecfs/document/view?id=7520941318>

No child should suffer involuntary RF radiation exposure and therefore be forced to incur an increased risk of cancer, functional impairment leading to ill health or cognitive impairment, or genetic damage in *their* children.

Any of these outcomes, which research supports as likely, violate children’s rights. Electromagnetic Radiation, Health and Children 2014 by Dr. Erica Mallery-Blythe, (<https://www.youtube.com/watch?v=sNFdZVeXw7M>) is a must-watch presentation about the hazard that RF radiation emitted by wireless technology poses to children.

Dr. Mallery-Blythe’s presentation references several U.N. Conventions on the Rights of the Child that would be violated by landline abandonment including:

Article 3 (best interests of a child): The best interests of a child must be a top priority in all decisions and actions that affect children.

Article 23 (children with a disability): A child with a disability has the right to live a full and decent life with dignity, and, as far as possible, independence and to play an active part in the community. Governments must do all that they can to support disabled children and their families.

Article 24 (health and services): Every child has the right to the best possible health. Governments must provide good quality health care, clean water, nutritious food and a clean environment and education on health and well-being so that children can stay healthy.

International Recognition of Need for More Conservative RF Safety Limits

Countries around the world are increasingly recognizing the risks of RF radiation and advising action to protect the public (http://www.cellphonetaskforce.org/?page_id=128) (<http://ehtrust.org/policy/international-policy-actions-on-wireless/>). Even the U.S., as cited above, is in the process of reviewing RF exposure guidelines. Countries such as China, Russia, Italy and Switzerland already have wireless radiation safety limits 100 times lower than the United States.

FCC Investigation of Current Exposure Limits Underway

With the FCC finally beginning re-evaluation of current irrelevant and obsolete non-ionizing RF exposure (<http://www.mainecoalitiontostopsmartmeters.org/?p=1390>) guidelines, it seems imprudent to approve of abandoning an established, reliable, safe and secure landline infrastructure that minimizes the public's exposure to RF radiation and instead, encouraging global proliferation of RF microwave radiation.

In the Inquiry the FCC requests comment to determine whether its RF exposure limits and policies need to be reassessed. Since consideration of the limits themselves is explicitly outside of the scope of ET Docket No. 03-137, the FCC opens a new docket, ET Docket No. 13-84, with the Inquiry to consider these limits in light of more recent developments. The Inquiry is intended to open discussion on both the currency of our RF exposure limits and possible policy approaches regarding RF exposure. <https://www.fcc.gov/encyclopedia/radio-frequency-safety>

Canada: Previous Safety Code 6 Inadequate

In June 2015, Canadian Parliament's Standing Committee on Health (HESA) issued a report with 12 unanimous recommendations for increased caution, investigations, reporting and data gathering with regard to RF/EMF and wireless devices. Canada's Safety Code 6 provided guidelines for RF exposure virtually identical to 1996 FCC guidelines until recently (March 2015) when Canada reduced its maximum permissible exposure limits by nearly 50%. *"The [HESA] Committee agrees that the potential risks of exposure to RF fields are a serious public health issue that needs to be brought to the attention of Canadians so that they have the knowledge to use wireless devices responsibly and are able to make decisions about the use of wireless devices in a manner that protects their health and the health of their families."* The Standing Committee report shares themes including cancer, illness, fertility, autism, public awareness, school environments, and medical responsibilities. It discusses studies demonstrating adverse effects at levels below Health Canada's guidelines (http://www.parl.gc.ca/Content/HOC/Committee/412/HESA/Reports/RP8041315/412_HESA_Rpt13_PDF/412_HESA_Rpt13-e.pdf).

RF Health Risks

A new compilation has been published of over 900 published peer-reviewed studies showing adverse effects from RFR exposure. The studies are organized in three categories and linked here. There are [700 Cell Phone Studies](#), [78 Cell Tower Studies](#), and [136 WiFi & Device Studies](#) listed. The listings contain an index by health effect type, and for each article the legal journal citation and an abstract with adverse health effects highlighted (<http://www.mainecoalitiontostopsmartmeters.org/?p=1469>).

Health Canada has acknowledged that some studies do find adverse health effects, as pointed out in the third link on this Canadians for Safe Technology (C4ST) Fact sheet (<http://c4st.org/safety-code-6/>) that shares:

1.2 Health Canada Admits Studies Show Harm at Levels Below Safety Code 6

Mr. Andrew Adams, Health Canada: In testimony before the Parliamentary Health Committee admitted there are studies that show harm below Safety Code 6 (virtually the same as FCC standards). Health Canada document “determined that 36 studies were of “sufficient quality for inclusion in the Risk Assessment” in the following categories:” Cancer is linked in 6 studies, brain/nervous system impacts in 13, biochemical disruption in 16 and development and/or learning behaviour impacts in 7.

The Standing Committee on Health (2015) examined the issues surrounding wireless radiation (radiofrequency electromagnetic radiation, RF), and the Committee—made up of federal Members of Parliament from NDP, Conservative, and Liberal parties—UNANIMOUSLY adopted 12 important recommendations after sharing that:

The Committee agrees that the potential risks of exposure to RF fields are a serious public health issue that needs to be brought to the attention of Canadians so that they have the knowledge to use wireless devices responsibly and are able to make decisions about the use of wireless devices in a manner that protects their health and the health of their families.

In 2011, the International Agency for Research on Cancer (IARC), a committee of the World Health Organization (WHO), classified RF radiation as a Group 2B possible human carcinogen in the same category as lead and DDT. Alarming, several scientists who were members of the IARC working group involved with this classification now conclude the risks are much greater than originally thought. For example, Dr. Dariusz Leszczynski warns that RF should be classified as a Group 2A probable human carcinogen, and Dr. Lennart Hardell reports that several studies indicate a Group 1 human carcinogen classification is justified, placing RF in the same category as tobacco, asbestos, and benzene (<https://betweenrockandhardplace.wordpress.com/2014/08/14/carcinogenicity-of-cell-phone-radiation-2b-or-not-2b/>).

U.S. National Toxicology Program: Radiation from Cellphones Carcinogenic

The U.S. National Toxicology Program released results showing that exposure to non-thermal levels of pulse-modulated microwave radiation causes cancer, specifically intracardiac schwannomas and malignant gliomas, and breaks DNA (<http://ehtrust.org/science/facts-national-toxicology-program-cellphone-rat-cancer-study/>). Epidemiological data show that the rate of glioblastoma multiforme of the brain, a malignant type of glioma, is increasing (<http://microwavenews.com/news-center/ntp-and-brain-tumor-rates>). Obviously the results of this study support an immediate halt to the implementation of further wireless internet and 5G projects, like Boeing's, pending safety evaluation.

Recently, in 2015, more than 200 scientists from 40 countries having over 2,000 published peer-reviewed journal articles to their collective credit in the field of biological impacts from RF/EMF appealed to the U.N. and the WHO for greater precautions with regard to exposures from wireless technologies. This is the latest in many such alerts to the health effects of RF/EMF exposure (<https://www.emfscientist.org/>).

Environmental Impacts

RF radiation kills and damages trees

Trees and other vegetation are being killed and damaged across the U.S. and world-wide even without the addition of further RF radiation exposure which abandonment of the landline phone system would cause. RF radiation causes tree damage. Several studies show the very serious effects that RF radiation has on the health of trees. Trees, agricultural crops and other plants are essential to the welfare of the global environment and the continuation of the human race. Decimation of the amazon rainforest by direct

human actions has been oft-cited as endangering the global environment, the FCC should not be moving forward with plans that will hasten the RF caused death of our urban and rural forests, cropland and other vegetation and associated insect/pollinator life, such as landline abandonment. Please read the following papers to see the toll RF is already taking on trees. We cannot afford additional forest die-off. Large mature trees are being seriously damaged and killed, this damage will take 50 years or more to repair.

- Radiofrequency radiation injures trees around mobile phone base stations: https://www.researchgate.net/publication/306435017_Radiofrequency_radiation_injures_trees_around_mobile_phone_base_stations
- Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings: Preliminary Observations <https://www.hindawi.com/journals/ijfr/2010/836278/>
- Review: Weak radiofrequency radiation exposure from mobile phone radiation on plants: <http://www.ncbi.nlm.nih.gov/pubmed/27650031?dopt=Abstract>
- Tree damage in the vicinity of mobile phone base stations: <http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/06/Tree-damages-in-the-vicinity-of-mobile-phone-base-stations.pdf>
- The trees make it easy to recognize the effects of RF-EMF. Examples of tree damage: <http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/09/Trees-in-Bamberg-and-Hallstadt-Dokumentation-2006-2016.pdf>

RF radiation kills and impairs reproduction of wildlife

A parade of studies continue to be published implicating wireless technology in the demise of frogs, bats, and honey bees, the threatened extinction of the house sparrow, and damage to the DNA of the human species. Abandonment of the landline phone system would increase environmental RF radiation exposures and eliminate options for decreasing environmental RF exposure, leading to great environmental harm.

- “The Report on Possible Impacts of Communication Towers on Wildlife Including Birds and Bees” commissioned on 30th August 2010 by the Ministry of Environment and Forest, Government of India http://www.moef.nic.in/downloads/public-information/final_mobile_towers_report.pdf
- “Impacts of radio-frequency electromagnetic field (RF-EMF) from cell phone towers and wireless devices on biosystem and ecosystem – a review,” http://www.biolmedonline.com/Articles/Vol4_4_2012/Vol4_4_202-216_BM-8.pdf
- Balmori, A. “Electromagnetic pollution from phone masts. Effects on wildlife,” *Pathophysiology* (2009), doi:10.1016/j.pathophys.2009.01.007 <http://www.ncbi.nlm.nih.gov/pubmed/19264463>
- October 31, 2014 presentation to the Manitoba Entomological Society, reviewing 91 studies on the effects of RF/MW radiation on honey bees, insects, birds, etc: https://groups.google.com/forum/#!topic/mobilfunk_newsletter/0RUPGTI4qQY
- A BRIEFING MEMORANDUM: What We Know, Can Infer, and Don’t Yet Know about Impacts from Thermal and Non-thermal Non-ionizing Radiation to Birds and Other Wildlife — for Public Release July 14, 2016. Albert M. Manville, II, Ph.D., C.W.B.

<http://www.mainecoalitiontostopsmartmeters.org/wp-content/uploads/2016/07/Manville-7-14-2016-Radiation-Briefing-Memo-Public.pdf>

High Energy Consumption of Global Wireless

Wireless technology, which landline abandonment would force more people to use, is an environmentally damaging technology for many reasons, including the fact that wireless connectivity uses far more energy than wired connectivity. According to *Energy Consumption in Wired and Wireless Access Networks*, **“Wireless technologies will continue to consume at least 10 times more power than wired technologies** when providing comparable access rates and traffic volumes. PON [passive optical networks] will continue to be the most energy-efficient access technology.” (<http://people.eng.unimelb.edu.au/rtucker/publications/files/energy-wired-wireless.pdf>), even as technology becomes more energy efficient. A higher amount of energy is consumed in transmitting large amounts of information through the air (a medium that has high resistance and high level of signal absorption) compared to transmission via various corded communication connections (e.g., copper or fiber optic based). In fact, in a paper looking at the energy consumption of cloud computing, the authors state, **“Our energy calculations show that by 2015, wireless cloud will consume up to 43 TWh**, compared to only 9.2 TWh in 2012, an increase of 460%. This is an increase in carbon footprint from 6 megatonnes of CO₂ in 2012 to up to 30 megatonnes of CO₂ in 2015, **the equivalent of adding 4.9 million cars to the roads. Up to 90% of this consumption is attributable to wireless access network technologies**, data centres account for only 9%.” (<http://www.ceet.unimelb.edu.au/publications/ceet-white-paper-wireless-cloud.pdf>) While the article discusses cloud computing as though it is an energy saver, it is clear from the discussion that those energy savings are only realized if the cloud replaces individual computing power. Otherwise, cloud computing only causes additional energy consumption and should not be promoted as an environmentally-friendly technology. The energy wastefulness of wireless technology, including cellphones, should cause the FCC serious pause in its promotion of wireless technology. So should the very serious health and environmental effects of the RF radiation wireless technology emits.

Access to Essential Services and Call Quality

With many senior citizens not having cell phones, abandoning landlines would deny them essential services. Having a landline could save their lives in an emergency where they need to call 911, particularly during power outages when cell phones are often not charged or the network has also lost power. With senior citizens often living away from family, it is important that they have a ready and simple means of communication for not only their health, but emotional wellbeing.


It is also important for younger children to have access to landline. For example, citizens have reported that having a landline available for their children, saved their lives. In an article ‘Pro & Cons: Should I keep a Landline for Emergencies?’, <http://www.apartmenttherapy.com/pros-cons-should-i-keep-a-landline-for-emergencies-197013>, one reader wrote about a specific situation in which a landline saved her life. She wrote: *“To each their own, but I collapsed suddenly while alone with my young child. A true medical emergency can leave you unconscious before you even realize what’s happening. My child knew where the phone was. She had no clue where my cell was.”* Being that many phones are password protected, it would not help even if the child knew where the phone was, and younger children especially would be prevented from calling 911 in an emergency such as a break in or fire. Furthermore, cell phone service is not reliable in all areas, and the call quality poor. With the known health effects, and government reviewing radiation standards, adding more cell towers and increasing RF exposure is not the answer.

Please consider our comments as reasons to deny CenturyLink’s request to abandon their landline phone system. In brief, those reasons include insurance industry recognition of serious risk to health (<https://smartmeterharm.org/2015/03/18/lloyds-of-london-excludes-liability-coverage-for-rfemf-claims/>), demonstrated detrimental biological effects at levels far below existing inadequate RF safety limits,

radiofrequency radiation currently classified "*possible human carcinogen*" by the World Health Organization, personal security risks, restricted access, inferior call quality, violation of the 2008 ADA Amendments requiring accommodation of environmentally induced functional impairment, and resultant violations of U.N. Conventions and Universal Declaration of Human Rights.

Sincerely,

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Effective Accommodation Practices (EAP) Series

Job Accommodations for People with Electrical Sensitivity

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JAN'S EAP SERIES

JOB ACCOMMODATIONS FOR PEOPLE WITH ELECTRICAL SENSITIVITY

Electromagnetic sensitivity, also known as electromagnetic hypersensitivity, electrical sensitivity, electro-magnetic sensitivity, and idiopathic environmental illness (IEI), has been difficult for the environmental health and medical communities to define. Individuals with electromagnetic sensitivity may experience various non-specific symptoms including but not limited to fatigue, weakness, neurological issues, immunological issues, gastrointestinal issues, increased irritability, lack of ability to think clearly and quickly, sleep disturbance, overall malaise, and anxiety.

Individuals with electromagnetic sensitivity typically report managing symptoms by avoiding exposure to electromagnetic fields (EMFs) that trigger their symptoms. They often make modifications to their homes and daily routines to minimize exposure through avoidance of EMFs and reduce their overall long term exposure to EMFs. When it is not possible to avoid it, then limiting duration and strength of exposure and use of shielding may also be useful. Based on data from JAN calls, common workplace issues involve exposure to Wi-Fi, cell phones, and computer equipment such as CPUs and monitors.

According to a review of literature by Martin Rösli 2007¹, a causal relationship between short term exposure to EMFs and elicitation of symptoms has been challenging to substantiate under laboratory conditions. However, population based studies involving longer term exposure have shown correlation between long term exposure and symptoms such as headache, cold hands or feet, and concentration difficulties. Research on this topic is ongoing.

The National Institute for Occupational Safety and Health (NIOSH) and the Centers for Disease Control and Prevention (CDC) have published guidelines for “safe” levels of human exposure in a publication called, Manual for Measuring Occupational Electric and Magnetic Field Exposures. However, the nature of electromagnetic sensitivity is such that even levels that are deemed safe for the general public can cause trigger symptoms for individuals who are hypersensitive. Individuals affected by electromagnetic sensitivity experience symptoms at far lower levels and therefore may need accommodations in the workplace beyond the safe levels of exposure indicated in the manual.

¹ Science Direct Environmental Research 107 (2008) 277–287 Radiofrequency electromagnetic field exposure and non-specific symptoms of ill health: A systematic review Martin Rösli Institute of Social and Preventive Medicine, Department of Social and Preventive Medicine, University of Bern, Finkenhubelweg 11, CH-3012 Bern, Switzerland Received 21 September 2007; received in revised form 4 February 2008; accepted 6 February 2008 Available online 21 March 2008 Retrieved 2/12/2015

Organizations such as the World Health Organization (WHO) and the United States Access Board, which offers technical assistance on the ADA Accessibility Guidelines, have issued statements and regulatory guidelines related to electrical sensitivity. The World Health Organization (WHO) held an international workshop on the issue in Prague, Czech Republic, in 2004. WHO recognizes that a significant number of people report symptoms after exposure to electromagnetic radiation that range from neurological and immunological to gastrointestinal issues (WHO, 2005). The Access Board addressed electromagnetic sensitivities as part of the IEQ Indoor Environmental Quality Project.

The following is a quick overview of some of the job accommodations that might be useful for people with electrical sensitivity. For a more in depth discussion, access JAN's publications at <http://AskJAN.org/media/atoz.htm>. To discuss an accommodation situation with a consultant, contact JAN directly.

General Accommodation Considerations

- Allow communication via typewriter or handwritten notes rather than via computer or cover the computer with Plexiglas or other shielding material.
- Provide headset/handset extenders or alternate headsets to lengthen the distance between devices that trigger symptoms and the employee's body.
- Change the employee's shift to allow for less exposure to others' devices.
- Relocate workplace away from areas where symptoms are triggered. This may include limiting certain types of devices in the vicinity of the employee's workstation.
- Allow telework (Note: regarding work at home, unless the employee wants to work at home, other options should be explored first to keep the employee in the workplace).
- Allow the employee to meet with others in areas where triggers are minimized or allow remote access to meetings or activities that must take place in areas that trigger symptoms.
- Provide wired telephones and network connections.
- Provide building-wide and/or workspace shielding of equipment and devices, for example add filters to fluorescent lights and tape electrical cords.
- Individuals with electrical sensitivity may also experience limitations from fragrance sensitivity and/or photosensitivity.

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